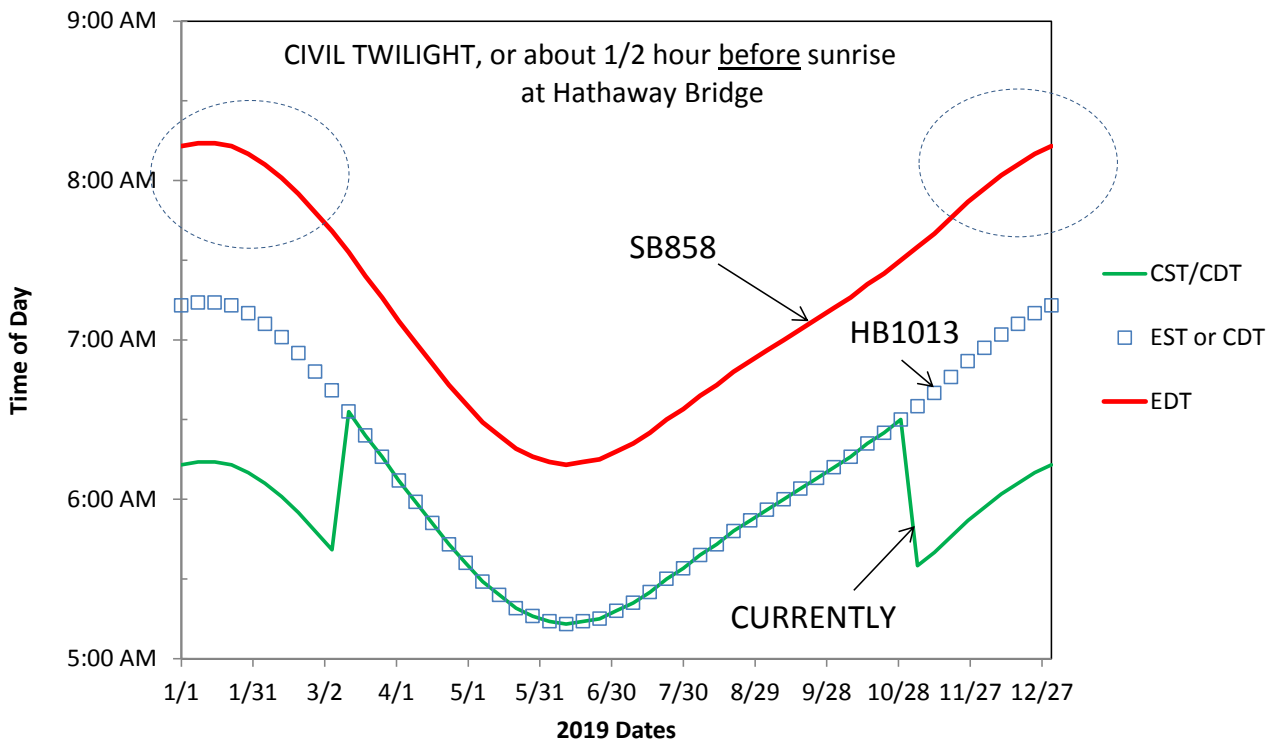


I must express my dismay at the proposal to shift the time zone to match the eastern side of the state. The legislators and civic leaders that suggest such a thing have not thought this proposal through. While House Bill 1013 is barely reasonable, basically putting us on Eastern Standard Time year round, Senate Bill 858 ends up with a situation that jumps us yet another hour. It lets local dawn happen after 8 AM between about the 10th of December and the 10th of February, and after 7:30 from 10/29 to 3/15. Keep in mind that these times are about a half-hour before sunrise. Thus, we will have to transport all groups of schoolchildren in the darkness or semi-darkness virtually the entire year. Currently, civil twilight ends no later than about 6:30 in the morning, and averages about 5:50 throughout the year. Although the buses are running in twilight during the first wave, all groups of schoolchildren are waiting at the side of an illuminated road now. There is a less important problem with the middle of the summer, when 4th of July fireworks displays will have to wait until 9:45. I have news for legislators: you cannot make a law for more light. You can only shove around what you have. For graphs of these effects, see our website below or go directly to <https://tinyurl.com/ybcyfqxm>.

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Calculations using MICA 2.0 (Multiyear Interactive Computer Almanac of the Naval Observatory, Wash. DC. Problem areas denoted by dotted circles.



(see PM times on next page)

